

Title (en)  
LIFT DEVICE

Title (de)  
HEBEVORRICHTUNG

Title (fr)  
DISPOSITIF DE LEVAGE

Publication  
**EP 4163065 A1 20230412 (EN)**

Application  
**EP 22199472 A 20221004**

Priority  
JP 2021165963 A 20211008

Abstract (en)  
A lift device (10) includes a body (12) having a cylindrical shape and an elastic member (54) having an annular shape. The body includes, at an axial end thereof, a flat surface (16) configured to hold a workpiece. The elastic member is disposed on an outer periphery of the flat surface of the body, and includes an annular protruding portion (58) that protrudes beyond the flat surface of the body in an axial direction of the body. The annular protruding portion has a circular-arc-shaped cross-section. Air supplied to the body flows along the flat surface of the body and the annular protruding portion of the elastic member.

IPC 8 full level  
**B25J 15/06** (2006.01)

CPC (source: EP US)  
**B25J 15/0616** (2013.01 - EP US)

Citation (applicant)  
JP 2010241603 A 20101028 - SAMSUNG CORNING PREC GLASS CO

Citation (search report)  
• [Y] US 2010171331 A1 20100708 - JONAS STEFAN [DE], et al  
• [Y] US 5067762 A 19911126 - AKASHI HIROSHI [JP]  
• [A] EP 2798671 B1 20200422 - 3M INNOVATIVE PROPERTIES CO [US]  
• [Y] WO 2014033794 A1 20140306 - HIRATA SPINNING [JP], et al  
• [Y] EP 3869544 A1 20210825 - SMC CORP [JP]  
• [A] EP 3557611 A1 20191023 - HARMOTEC CO LTD [JP]  
• [A] US 6601888 B2 20030805 - MCILWRAITH LON [CA], et al  
• [A] US 2013032981 A1 20130207 - SCHAAF WALTER [DE]  
• [A] WO 2011027547 A1 20110310 - MURATA MACHINERY LTD [JP], et al

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**EP 4163065 A1 20230412**; CN 115959474 A 20230414; JP 2023056639 A 20230420; US 2023110422 A1 20230413

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